

# **Effectiveness of Speech Language Therapy for Aphasia: a Systematic Review of Randomised Controlled Trials**

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## **Abstract**

Aphasia is an acquired communication disorder resulting from brain damage, and is generally manifested as an impairment in comprehension and/or production of spoken and/or written language. Symptoms are highly heterogeneous and highly dependent upon lesion location, size and time since damage occurred.

The gold standard in aphasia rehabilitation is Speech Language Therapy (SLT), a term that encompasses a wide range of training strategies aimed at improving the impaired functions and/or at adopting alternative strategies to maximise individuals' communication skills. Decades of research have shown that SLT is essential for successful recovery of language functions; yet, it is still unclear how factors like type, amount and intensity of therapy are best combined to optimize the outcome of rehabilitation across individuals with different capabilities. This limits the delivery of effective care in a resource-limited healthcare system, and many — if not most — people with aphasia likely receive suboptimal treatment. On the other hand, we are on the verge of an era where remote rehabilitation will be affordable by virtually everyone by means of highly accessible technologies. The future of aphasia treatment depends on reliable information to inform the design of technologies that can have a tremendous impact on the quality of life of people with aphasia.

The state of the art on the effectiveness of SLT for aphasia due to stroke was summarized in a recently conducted systematic review (Brady et al., 2012). This study revealed evidence that people with aphasia receiving SLT had a clinically significant improvement on functional communication outcomes when compared to patients that received no treatment. However, it was not possible to draw conclusions on the most effective ways to implement SLT in terms of dosage, time onset of therapy after the occurrence of aphasia and type of exercise employed. This was mostly due to a lack of properly designed and implemented randomised, controlled trials and to poor reporting of essential methodological details. Since the aforementioned review was published, several randomised controlled trials on the effectiveness of SLT have been conducted, providing a wealth of novel information to improve the reliability of previous reviews. Therefore, with the aim of examining recent advances in clinical practice for aphasia rehabilitation and to update Brady's review, we searched the literature from July 2011 to September 2015 using the same inclusion criteria. Thirteen studies were eligible to be included in the review, for a total of 508 participants randomised across groups.

Data from these studies will be integrated with the ones selected by Brady et al., and meta-analysis will be employed to assess the effectiveness of SLT on quality of life. The implications for clinical guidelines for best practice in SLT will be discussed and presented together with the limitations that are still characterizing this discipline.

## References

Brady MC, Kelly H, Godwin J, Enderby P. Speech and language therapy for aphasia following stroke. *Cochrane Database of Systematic Reviews 2012, Issue 5. Art. No.: CD000425. DOI: 10.1002/14651858.CD000425.pub3*